REMARKS

Applicant is in receipt of the Office Action mailed September 15, 2003. Claims 1 – 6 were pending. Applicant has amended claims 1 and 4 – 6, and added new claims 7 – 29. Claims 1 – 29 remain pending in the application.

The Examiner has objected to the drawings for not including enough paper-margin, for including a number of crossed out references without proper initials, for including reference signs not included in the description, and for including a number of references in the specification that are not present in the drawings.

Applicant submits herewith formal drawings, and therefore believes the objections with regard to margins and crossed out references to be overcome. Applicant further notes that reference signs 250 and 254, which the Examiner had objected to as being not included in the description, may be found on page 6, lines 24 and 26, respectively. Furthermore, Applicant respectfully requests that the Examiner list the specific references in the specification that are not present in the drawings.

Claims 1 and 5 were rejected under 35 U.S.C. §102(b) as being unpatentable over Belsan et al. (USPN 5,403,639, hereinafter "Belsan"), while claims 4 and 6 were rejected under 35 U.S.C. §102(e) as being unpatentable over Sun et al. (USPN 6,442,663, hereinafter "Sun"). Claim 2 was rejected under 35 U.S.C. §103(a) as being unpatentable over Belsan in view of Sun, while claim 3 was rejected under 35 U.S.C. §103(a) as being unpatentable over Belsan in view of Biegel et al. (USPN 5,608,720, hereinafter "Biegel").

Belsan teaches a file server system having snapshot application data groups. The file server system appears to the data processor(s) to be a plurality of data storage devices that are directly addressable by each data processor using the native data management and access structures of the data processor. (col. 2, lines 4 – 10) Snapshot application data groups allow the end user to define a set of data sets and/or databases that must by

synchronized in time. The snapshot application data group the allows the end user to reference that set of data sets as a single entity for creation, access, and delegation of operations. (Col. 2, lines 26 – 31)

Sun teaches a technique for process migration between computers, particularly for collecting the memory contents of a process on one computer in a machine-independent information stream, and for restoring the data content from the information stream to the memory space of a new process on a different computer. (Abstract) Specifically, Sun teaches a buffer data transfer (BDT) mechanism for heterogeneous network process migration. BDT managed data collection and restoration as follows:

1) When migration is initiated, the BDT sends information about the execution state of the migrating process to a new process on the destination machine. The new process creates a sequence of function calls identical to those in the migrating process to jump to the point where migration initiated.

(2) After sending the information, the migrating process collects and saves the necessary data of the innermost function in the calling sequence to a buffer and returns to its caller function. The same operation continues until the main function is reached. Before terminating the migrating process, the BDT sends the stream of information stored in the buffer to the new process.

(3) At the destination machine, the new process reads and restores the live data from the information stream. The BDT mechanism restores the live data of the function called until the end of its execution. After the function returns to its caller, the BDT again reads the content of the information stream to restore live data of the caller function, and continues to control the order of the data restoration through this process until the main function is reached. (col. 7, line 65 – col. 8, line 28)

Biegel teaches a control system for a network element (NE) such as a remote digital terminal in an integrated digital loop carrier system. The system comprises subsystem for operating circuit packs and for providing functions that are common to the circuit packs. (Abstract.) More particularly, Biegel teaches that there are two basic types of threads in the NM tasks: service execution and command execution. Multiple service threads can be carried out simultaneously by building state machines for each control

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path. The state machine contains the current state information of the thread and an automat to determine the valid next states, based on events, that the thread can transition to. (col. 40, lines 7 – 13)

Applicant can find no language within Belsan, Sun or Biegel, either separately or in combination, that teaches or suggests a method wherein **"recording process events that change the state of the process"** as recited in Applicant's claim 1. In comparison, Belsan teaches the use of data record pointer information to manage the placement of data records in the copying of those data records. (col. 7, lines 42 – 46)

Accordingly, claim 1 is believed to patentably distinguish over the cited references. Claims 2 – 3 are dependent upon claim 1. As such, these claims are also believed to patentably distinguish over the cited reference for at least the same reason. Claim 5 recites features similar to claim 1, and is thus also believed to be patentably distinguishable for at least the same reason.

Applicant can find no language within Belsan, Sun or Biegel, either separately or in combination, that teaches or suggests a method wherein "For each type of state stored within the stored software application, bind system state to a virtual definition if the state is virtualized, **reconnect the state to any processes the state is shared with, and place the state in synchronized wait**" as recited in Applicant's claim 4. In comparison, Sun teaches that mobile agents are implemented on top of interpreted, or safe, languages, and that the interpreter acts as a virtual machine to create a virtual homogenous environment.(col. 2, lines 52 – 58)

Accordingly, claim 4 is believed to patentably distinguish over the cited references. Claim 6 recites features similar to claim 4, and is thus also believed to be patentably distinguishable for at least the same reason.

Furthermore, Applicant's newly added Claim 7 recites in pertinent part:

recording process events that change one or more states of one or more processes associated with a running software application;

saving one or more snapshot images, the one or more snapshot images comprising said one or more process states of said one or more; and

saving shared resource state used by the application with said snapshot images.

Applicant can find no language within Belsan, Sun or Biegel, either separately or in combination, that teaches or suggests a method wherein "**recording process events that change one or more states of one or more processes**" as recited in Applicant's claim 7. In comparison, Belsan teaches the use of data record pointer information to manage the placement of data records in the copying of those data records. (col. 7, lines 42 – 46)

In addition, Applicant's claim 7 includes the limitation "**one or more states of one or more processes associated with a running software application.**" In comparison, Belsan teaches a snapshot application data group, which comprises a set of data sets and/or databases that must by synchronized in time, while Sun teaches saving data from a sequence of process functions in a machine-independent data stream, and Biegel teaches state machines in a plurality of threads.

Furthermore, Applicant's claim 7 includes the limitation "**saving shared resource state** used by the application with said snapshot images.**" Applicant can find no teaching or suggestion of such a limitation in Belsan, Sun, or Biegel, either separately or in combination.

In accordance, claim 7 is believed to patentably distinguish over the cited references. Claims 8 – 12 are dependent upon claim 7. As such, these claims are also believed to patentably distinguish over the cited references for at least the same reason.

Claims 13 and 19 recite features similar to claim 7. As such these claims along with their respective dependent claims 14 – 18 and 20 – 24, are also believed to patentably distinguish over the cited references for at least the same reason.

In addition, Applicant's newly added claim 28 includes the limitation "**saving a second snapshot image of the running software application on the first computer system, the second snapshot image containing only differences from the first snapshot image.**" Applicant can find no teaching or suggestion of such a limitation in Belsan, Sun, or Biegel, either separately or in combination. Accordingly, claim 28, along with its dependent claim 29 is believed to patentably distinguish over the cited references for at least the above reason.
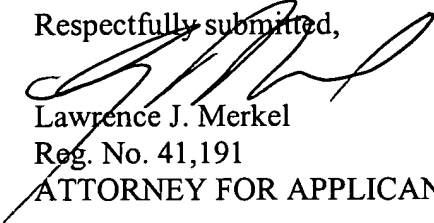
CONCLUSION

In light of the foregoing remarks, Applicant respectfully submits the application is now in condition for allowance, and an early notice to that effect is requested.

Please charge the following fees to Meyertons, Hood, Kivlin, Kowert, & Goetzel, P.C. Deposit Account No. 50-1505\5760-22400\BNK:

- 9 claims over 20: $162.00;

- 4 independent claims in excess of 3: $344.00

The Commissioner is authorized to charge any additional fees which may be required, or credit any overpayment, to Meyertons, Hood, Kivlin, Kowert, & Goetzel, P.C. Deposit Account No. 50-1505\5760-22400\BNK.

Respectfully submitted,

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